Possibilities of ICT and tool limits relative to sustainable development, participation and partnership.

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POSSIBILITIES OF ICT AND TOOL LIMITS RELATIVE TO SUSTAINABLE DEVELOPMENT, PARTICIPATION AND PARTNERSHIP

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1 - PREAMBLE

During the last international CAENTI conference in October 2007 in Huelva (Spain), the state of the WP5 reflexion was presented as "« Lettre de Qualité de la Recherche Action - Letter of Research Action Quality"[1] proposal. This document, written by Blanca Miedes Ugarte, Dolores Redondo Toronjo and Laurent Amiotte-Suchet, based on the work and meetings carried out by WP5members in 2006 and 2007, was appeared as a guide aiming to listing dimensions set likely to support a lasting cooperative participation between university researchers and terrain actors in the installation, implementation and the management of research-action project. Thus, four principles had been defined and for each one, various resources were identified. The objective is to determine the conditions, if not necessary, at least positive, with the installation of lasting cooperative participation between researchers and terrain actors in the installation and the development of research-action projects.

* Principle 1: Mobilization of the territorial actors and resources
  - Investigation of the target territory's actors and resources
  - Organization of actors/researchers partnerships
* Principle 2: Mutualisation of the whole of competences and knowledge
  - Multidimensionality of the action-research
  - Co-learning
* Principle 3: Responsibility of participants and involved institutions
  - Organization of a collaborative management of the project
  - Deontology and autonomy of participants
* Principle 4: Common property of the results of the Action-Research
  - Regular evaluation of the impact on the territory
  - Durability of the implemented actions

Each one of the eight resources corresponding to four established principles had been based on the reflection work undertaken by the CAENTI's WP5. The work meetings and intermediate (Delivrable) reports of the WP5 were based on empirical experiments set related to the research-action undertaken by CAENTI research teams and organizations partners since more than about fifteen years. On this work base were established the "Charts" describing one by one the multiple research-action projects carried out in different European countries by CAENTI partner's teams. In each one of these documents, important places are granted to the use of information and communication tools as well as the one of the database and analyzing tools used within the framework of the research-action projects. In the document entitled: "Territorial European quality letter of research promoting governance of sustainable development", the ITC potentialities and limits are considered with the respect of different resources supposed to support lasting participative collaboration. This deliberation re-cuts the tools description partly carried out within the framework of the WP6U (Delivrable 56). This document seeks to continue this reflection by drawing up the ITC potentialities panorama and tools' limits with regard to the installation of a lasting cooperation partnership between researchers and terrain actors.

2 – INTRODUCTION

A report is imposed immediately since the question about analyzing the ITC potentiality and limits within the research-action framework, was evoked. The concept of "technology", associated the one of "tool", constitutes from the beginning a barrier to its proper development within the research-action projects framework and more largely in the social sciences domain. Two reasons can be evoked to clarify this established fact. On the one hand, new technologies suppose that those having recourse benefit preliminary profit as intellectual baggage and technical knowledge without which their use remains difficult. Even if it is about a generational or socio-cultural question, the fast development of data-processing tools and the data analyzing software use are confronted in their use with the feeling of potential users incompetence, a feeling generally reinforced by interfaces not much adapted to a non specialized public and by the generalized use of the Anglo-Saxon technical vocabulary which contributes to reinforce the incomprehension and to discourage the training effort essential to discover these new tools. On the other hand, within the social sciences framework in particular, the data-processing analyzing tools are very often perceived like systems aiming the modelling (by simplifying

[1] Territorial European quality letter of research favoring territorial governance of sustainable development

them) of complex and polymorphic social phenomena. The questioning about the resolutely quantitative approaches in social and human sciences very largely articulates its sales points on the improbability of a tools transfer resulting from the applied sciences and economy towards the social phenomena analysis. Criticism relates resolutely to the risk of modelling, and blind and stripped of critical reflexion confidence vis-à-vis the response elements brought by the analyzing tools.
The set of these elements corresponds initially to one form of "mistrust of principle" vis-à-vis the unknown, but equally to phantasms set related to the information and communication technologies' development. In a recent interview given to the Radio French-speaking Switzerland in August 2008, the sciences sociologist Alain Kaufmann evoked three principal fears which currently animate the social debate opposite the information and communication technologies and nanotechnologies: the risk of social control excess related to the personal data accessibility translating the philosophical opinions, the consumption modes and the transgression behaviours, the risk of a social bond rupture related to the development of communication at the same time anonymous and uninhibited of social standards via the chats, discussion and *open space* forums, and risks of environmental dysfunctions related to the irruption of new matters and objects in our daily environment[2]. Indeed, the ITC's use drains questions of ethical nature since it is a question of constituting databases about a population in precariousness situation where transgression behaviours, clandestine work and territory illegal presence situations can be very largely widespread. For terrain actors which pass mostly of their time to weave bonds with these populations and to create optimal conditions for a relation of lasting confidence essential for the people's accompaniment, the database construction remains a major challenge on ethical level in reference to re-use risks of these data at police ends.

Indeed, there is always a risk of machine control loss by the user in question. The reserves which appear within the social sciences framework vis-à-vis the use of the ITC responds on the same fear type of a "machine dictatorship", returning very largely to the opinion dictatorship themes where the simplified and directed coded data exploitation makes run the risk of the figures illusion, illusion on which the base will be legitimated various policies guidance. These reserves, sometimes completely legitimate, contribute to generate minimal ITC potentiality exploitation and constitute in fact the base of vicious circle. Indeed, if the researchers or terrain actors could discover with interest the communication by e-mail within the framework of their work, the not resorting fact, by ignorance or by reserve, with the development of anti-spam filters, the principles of limp management with intelligent letter box and to the vigilance of RSS flows, gradually will contribute to weigh down the use of electronic letter-box considerably so much, that the time reserved for sorting of really relevant information occupies more time than the fluidity of the communication by e-mail was not supposed to save some. In the same order of idea, the reserve with regard to the use of statistical analysis and existing database tools continues, mainly because of the perception without any "tool" concept, to dig the gap between quantitative and qualitative research, as if they were two basically distinct and not easily reconcilable steps. However, in theory, any research must, according to its objectives, mobilize all tools at its disposal within the framework of its methodological protocol. It is not exaggerated to make the report which social sciences remain still very often articulated around the quantitative/qualitative border and which "methodological traditions" continue to reinforce this "border" without managing to exceed it.

As regards researchers as well as regards terrain actors, the ITCs are regularly associated with the idea about technology difficult to access requiring expert competences. Finally, seems well to hold with the feeling of incompetence, which masks a discrete fear or a given hostility. Certainly, the ITC potentiality is not always essential to the approach work and progressive familiarisation, characterizing the terrain actors' one invested in the accompaniment and the support for populations in precariousness situation. The treatment of a significant data quantity is not always adapted to researches attentive to: intentions, values and significances that men and women invest in social interactions which constitute the daily newspaper of their existence. But since researchers and actors decide to invest themselves together in a project, that the ones like the others define as the pooling of reciprocal problems in order to build a truly research-action partnership mode, the recourse to the ITC potentiality can prove to be determining for the project's lasting. The ITCs are not simple tools of information or analyzing. They are written down in the "communication" field, intended like art to establish the link between information and knowledge to recall each time the "data" could not be built, analyzed and effectively used without in parallel the development of partnership steps, aiming to reinforce the collaboration between those having the competence to produce these data and those having a precise and close enough knowledge of the "terrain" to direct these same data structuring. Thus, the partnership step here is the key of a Co-training essential to the research-action quality.

[2] Cf. http://www.rsr.ch/espace-2/les-temps-qui-courent/selectedDate/14/08/2008/

3 – FOUR TOOLS OF FAMILIES PROMOTING THE LASTING COOPERATIVE PARTICIPATION

The "Letter of Research Action Quality"[3] proposal was carried out on the base of meetings and work carried out by the WP5 members in 2006 and 2007. The ITC potentialities and limits are considered with the respect of different resources supposed to support lasting participative collaboration: mobilization of all territory resources, competences and knowledge mutualisation, gives a sense of responsibility to participants and their supervision institutions, common results appropriation. If all the projects described by WP5 members does not aim to hold these 4 dimensions together, they all have in common to exploit partly ITC's potentialities (while being confronted to their limits) and to seek in these tools the resources to dynamize the partnership's departure. We have chosen to reflect one part of these tools by spearing them in four distinct families, according to the using type of which they are object. For each one of these families, we will try to give an outline of the tools' interests and limits in participative cooperative lasting term.

3.1. Communication tools

The communication tools are faraway the most known and the most used within the framework of the research-action projects because the participants majority are already users within the framework of their professional activities. Obviously in very first place, we think at the electronic mail which remains the most widespread mode of communication by now. The forums and collaborative workspaces also enter in this family since they have for objective supporting the interactivity between project members by filing and giving access to the document and by allowing exchange and debate, as well as the concerted decision making. But it is also advisable to register in this tools' family the communication software such as PowerPoint which is also largely used at the various business meetings in order to synthesize and present better the work themes sets, whose meetings are the object.

3.1.1. Potentiality of communication tools

Within the framework of research action projects described and analyzed by WP5 CAENTI team, the communication tools are essential. On the one hand, these projects well obviously, because they are built through setting in network researchers and terrain actors which do not share necessarily the same geographical localization and have, in fact, need to communicate together frequently without having to move. But there is not the principal these tools' interest. The role the mostly determining for the research-action is rather in transformations which they operate on the decision-making processes level. The cooperative workspaces represent on this first order tools' level, permitting to give a permanent access and constantly updated according to filed documents and to the state questions still open to debate.

Moreover, they permit participants a common collaboration in working papers drafting, by authorizing different consultation levels and various intervention modes (correction, modification, comment, validation…). The history of opinions, requests, correction or standpoint of ones and others thus guarantees a perfect team work transparency which, in fact, supports and reinforces the feeling of each participant to be completely a decision-making process actor. Furthermore, the cooperative workspace, because it ensures the traceability of the exchange activity which animates it, develops the effective participation by not being aware of any statutory hierarchy related to the institutional participants' appearances. So the project evolution completely redraws the authority levels of instituted supervision and allows to criticisms and initiatives to flaunt themselves with more force. It is not exaggerated to say that, in many cases, the project's driving team redraws itself through the collaborative workspaces' use, which supports very largely the autonomy catch of all the actors vis-à-vis their supervision institutions and encourages the individual participants' responsibility.

3.1.2. Limits of communication tools

If the cooperative workspaces can play a part completely determining in speed, the transparency and the communication quality between different research-action project's participants, their effectiveness depends very largely on their readability and their actualization. As always, the tool, no matter its technological robustness, it is nothing without ceaseless cleanings and adjustments of which it must be the object. The first cooperative workspaces' difficulty is that they come to be added on the communication by e-mail creating a second network, which causes at the same time redundancy and contradiction between the ideas and documents exchange within the project. The collaborative workspace effectiveness depends very largely on the vigilance and the rigour of its

[3] Territorial European quality letter of research favoring governance of sustainable development

coordinator (S) whose role precisely consists in making sure that the unit of elements under discussion and of collectively validated standpoint remains sufficiently updated and viewed on the workspace to concentrate the reflexion effort on the questions about suffering. Another limit of this tool type use reposes in the danger of exclusiveness during on line debate. The research-action project's participants, because they come from different universes, do not have all the same familiarity or the same interest for the Internet communication. Thus, the risk still remaining is that involuntary exclusion processes appears towards those using only too few the cooperative workspace. If this tool type can be a means of improving collaboration quality, it must in every instance remain one of the tools (and not the only) through which project members implement the participative process.

3.2. Information and database tools

This family gathers all consultation tools which permit to project participants to be held informed of the projects topicality very as much as knowledge elements (statistical data) under development. Thus, initially sites and Internet ports are found, dedicated to the projects and the entire of their instituted partners. They allow a gravitational and updated project presentation and its objectives while also supporting, through the setting on line of current events and mailing lists' relay, to reinforce the work dynamics and to improve the interaction between various working groups which are articulated around the project. In second place, we find out in this tools' family the database (on line or not) allowing a dynamic consultation and they build, structure themselves and evolve throughout the project's course.

3.2.1. Potentiality of information tools

As well as the communication tools, the information tools support the exchanges density of information. But the more particular role of the sites and gates reposes in their capacity to generate network and, in fact, to allow the new partnerships installation. Contrary to workspaces which, by definition, are devoted to an internal communication with the participants' network, the sites and ports are initially carried out and animated for touching actors not integrated into the project and thus developing the "community" of people having, from their professional activities, affinities with research and/or the considered action. The database on-line play a similar part while offering the possibility of dynamic consultation according to various data accessibility levels. It is advisable here to distinguish two important dimensions: the database construction and consultation. Each one of these dimensions carries in it a beneficial effect for the participative collaboration quality between different participants. The database construction supports very largely the terrain actors' implications that while strongly contributing to the phase of data-gathering thanks to their knowledge and with their familiarity with the populations targeted by the project, discover and are familiarized with investigation methodologies. Confusing thus somewhat the institutional border between researchers and terrain actors, the collaboration which is set up in the data-gathering phase reinforces the participants' feeling to be fully implied in the surveys development and to experience, with others, the methodologies complexity necessary to the database constitution. The database consultation constitutes also an important factor in the project's dynamics. Operating through easy use interfaces, the data consultation on demand (always according to different data access levels) allows an excellent project's media coverage towards outside while offering to its participants quickly accessible tool able to control a good statistical data knowledge of the target population and to stimulate their reflexions as for the project work themes.

3.2.2. Limits of information tools

As for the previous tools family, the information tools effectiveness rests mainly in the quality of the actualization and animation work. The actuality on the Internet depends to a large extent on its readability and its regular actualization. It is especially on the database level where important difficulties can appear, particularly in consequence of the treating question difficulty of the collected data confidentiality. To determine with all partners of the data access levels, can constitute a major challenge, so much the distinct professional universes membership induce a degree different of vigilance vis-à-vis the personal data likely to be collected and shared.

3.3. Observation and analyzing tools

The observation and analyzing tools occupy a particular place in the research-action projects because the project's heart primarily rests on them, having by definition the objective to produce knowledge likely to

direct decisions and to lead to concrete actions. Thus we gather in this family the statistical and space analyzing software ensuring the collected data processing and highlight the population panel specificities, the troop evolutions, the territory characteristics or the policy guideline impact, a training process or an environmental change.

3.3.1. Potentiality of observation and analyzing tools

The research-action, by definition, aims to determine the possible activities sphere starting from a carried out expertise thanks to the recourse to the quantitative and qualitative analyses. Just like for the data-gathering work, the potentiality of this tools' type on participative collaboration reposes much more on their use than on their technological performance. Once again, in order to all participants be perceived like actors with entire project's part, it is determining that they are all associated to the set of project stages and that the analyzing phase is not folded up on the researchers' community. The terrain actors' participation in multiple meetings bearing on data processing is essential with their lasting implication in the process. While collaborating on the kind in the analyzing tools use, the terrain actors bring an intimate knowledge of the population-target which is necessary for the relevant indicators identification adapted to concrete concerns of an occupational class confronted with particular problems (realization of a common territory diagnosis). It is indeed because they are fully familiarized with the operation of data processing tools and stages which the terrain actors can then find their place at the researchers sides in working groups, to intervene in a relevant way in the debates and really to adapt the become of project in order to invest one analyzing elements part in their professional implication.

3.3.2. Limits of observation and analyzing tools

If it is determining that the observation and analyzing tools do not remain the private researchers' field, this objective remains without any doubt most difficult to realize. Very often, the research-action projects stumble against this dimension and the researchers/terrain actors' border redraw them during the analyzing phase. On the one hand, it is appropriate that the analyzing tools, generally resulting from university laboratories, are refitted in their use to be adapted to a not initiated public. But it is also appropriate that work groups' stages are regularly installed so that all participants have basic knowledge necessary for the tools' use; without what simple vocabulary difficulties could discourage the terrain actors implying itself in this essential phase of the research-action.

3.4. Management and projects' evaluation tools

This last tools' family is strongly related to the preceding one. It corresponds to tools permitting projects carriers to evaluate the real actions' impact implemented on the concerned territory. The border between analyzing and evaluation tools is thus generally weak since the impact evaluation supposes in fact the recourse preliminary to analyze.

3.4.1. Potentiality of management and projects' evaluation tools

The management and evaluation tools' role has a primary importance within the framework of the research-action projects. Indeed it is thanks to this tools' type that the loop can be buckled to some extent, i.e. the terrain actors, the academic researcher and the users' population can profit from the lighting in return for the implemented actions' effectiveness (and the subsidies which carry them). It is thus common control of results for which it is a question here. The projects' management and evaluation tools are necessarily adapted to each project's specificity. This collective constructive work of the tools, implies the evaluation installation likely to take into account the point of users' view and thus to prevent that the projects' impact evaluation rests only on the subjective participants' perception necessarily conquered in the carried out actions effectiveness. The evaluation tool's collective construction thus permits to join together around the same table all participants, so that the concerns and competences of each one can be taken into account. The collective work of the tool development counts perhaps, as much as the interest for the evaluation itself with regard to lasting collaborative participation of all projects' actors. Indeed, these are the work meetings allowing the collectively shared identification of evaluation criteria, which supports considerably thereafter the evaluation reception.

3.4.2. Limites des outils de gestion et d'évaluation des projets

The principal difficulty that evaluation tools meet is due to the necessary objectivity sought by any evaluation. Indeed, by principle, the action evaluation must be carried out outside, in other words by other actors than those that worked out and implemented the project to evaluate. Thus, the evaluation takes the external expertise form which conclusions do not always satisfy the projects' leaders. From terrain actors' side, the difficulty reside in the fact that this "expertise", using quantitative tools permitting it to be objective, can quickly

be perceived like inapt to really take into account human impacts considered to be non quantifiable starting from such tools, in particular concerning projects residing in primarily on populations in difficulty accompaniment.

4 – CONCLUSION

As that clearly appears in this document, the tools' technological potentialities determine partly their interest within the research-action framework. The tools' effective use depends mostly on a collaboration process between researchers and terrain actors aiming putting tools in service of the participants' community by adapting them to project objectives and by implementing the training processes likely to allow all the participants to re-appropriate the tools' potentiality. These tools could not be fully operational if they are not permanently the object of collective reflexion with regard to their accessibility (as much in the field of the interface readability than on that of rules determined collectively as for data confidentiality). The tools are not participative on itself, it must become it thanks to collaboration efforts set up with the project centre whose objective is initially and above all to avoid the experts' community constitution facing the terrain actors one's consequently subjected to analyzes and evaluations authority that they do not understand any more the possible stakes and articulations with their professional objectives. If the terrain actors' training to research tools is obviously an essential dimension, it is not in measurement with it, only to attenuate the border between research and action. It is well at the project's control that the company success resides. As regards the expert gives the lesson to users, no participative lasting collaboration cannot set up him. The research-action projects' coordinators must learn how to reconsider the participants' management, so that the already considered simply positive project's dimension: the collaboration of all participants, become the first and essential objective any being claimed research-action project. Perhaps we miss men and women able to coordinate these collective companies by having constantly the concern of preventing that authority reports and dialogues incapacities are born from the institutional hierarchies, the involuntary qualification levels discrimination in the tools' use and the capacity lack of the ones and the others to re-appropriate, in order to take into account, situations, constraints and professional objectives of all participants in the project.